



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-------------|----------------------|---------------------|-----------------------|
| 10/624,321 | 07/22/2003 | Jung-Fu Cheng | 4015-5072 | 7306 |
| 24112 | 7590 | 01/25/2006 | EXAMINER | |
| COATS & BENNETT, PLLC | | | | DILDINE JR, R STEPHEN |
| P O BOX 5 | | | | ART UNIT |
| RALEIGH, NC 27602 | | | | PAPER NUMBER |
| | | | | 2133 |

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------------|-------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/624,321 | CHENG, JUNG-FU | |
| | Examiner R. Stephen Dildine | Art Unit 2133 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9,13-17,20-23,26-36,40-49,52-61,65-74,77-84 and 86-90 is/are rejected.
- 7) Claim(s) 10-12,18,19,37-39,50,51,62-64,75,76 and 85 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 22 July 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/IDS's</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

Information Disclosure Statement

The reference to Cheng (Cite No. 3) cited in the IDS filed 3 December 2004 has only been considered to the extent that it has been determined that this document was published on 1 December 2003 which was after this application was filed, therefore this referenced does not qualify as prior art under 35 USC 102 or 103.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 13-14, 20, 30-31, 42, 44, 54-55, 66, 68, 80-81, 86 and 88 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by either Classon et al. (2003/118031 cited by applicant) or Imahashi (JP 2002-319923) who teaches one of ordinary skill in the art at the time of applicant's invention to provide method steps, means or circuits, a controller or control means or a computer program for selecting a retransmission protocol based on a changing transmission variable (quality).

Claims 1-2, 13-14 and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Ghosh et al. (6,308,294) or Ott (6,182,264) or Anders Nystrom et al. (6,189,123) or Park et al. (GB 2 345 829) or Baker (GB 2 346 303) or Kang et al. (GB 2 357 017) or Kobayashi (JP 2001-257602) or Yoshida et al. (JP 2002-43953) or Lee et al. (2002/0053058 cited by applicant) each of which individually teach one of ordinary skill in the art at the time of applicant's invention to provide a step or steps for selecting a retransmission protocol based on a changing transmission variable (quality).

Art Unit: 2133

Claims 54-55, 66 and 68 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Ghosh et al. (6,308,294) or Ott (6,182,264) or Anders Nystrom et al. (6,189,123) or Park et al. (GB 2 345 829) or Baker (GB 2 346 303) or Kang et al. (GB 2 357 017) or Kobayashi (JP 2001-257602) or Yoshida et al. (JP 2002-43953) each of which individually teach one of ordinary skill in the art at the time of applicant's invention to provide a means or circuit in a transmitter for selecting a retransmission protocol based on a changing transmission variable.

Claims 30-31, 42 and 44 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Ghosh et al. (6,308,294) or Ott (6,182,264) or Anders Nystrom et al. (6,189,123) or Kang et al. (2 357 017) or Baker (GB 2 346 303) each of which individually teach one of ordinary skill in the art at the time of applicant's invention to provide a controller or control means for selecting a retransmission protocol based on a changing transmission variable.

Claims 80-81, 86 and 88 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Baker (GB 2 346 303) or Kang et al. (GB 2 357 017) each of which teach one of ordinary skill in the art at the time of applicant's invention to provide a computer program for selecting a retransmission protocol based on a changing transmission variable.

Claims 3-4, 15-16, 32, 45, 56-57, 69-70, 82-83 and 89-90 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Gesbert et al. (6,760,882) who teaches a step for selecting a retransmission protocol based on a changing transmission signal to noise ratio (as set forth in the abstract of the reference), see also column 3, lines 10-12 of Gesbert et al. "In yet another embodiment, the second-order statistical parameter is a variance of the short-term quality parameter" (e.g. signal-to-noise ratio).

Claims 5-6, 17, 26-28, 33, 42-43, 46-48, 58, 67-68, 71-73, 84 and 87 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yoshida et al. (JP 2002043953 A) who teaches in paragraph [0012] "The error correction approaches and the correction equipment concerning this invention are a transmitting means have two or more coding means protect with two or more error correcting codes to the data to transmit, an output means for transmitting previously an error correcting code sequence with the small redundancy which contains data previously, and transmitting the large error correcting code sequence of correction capacity afterwards, and a storage means memorize the large error correcting code sequence of the correction capacity for transmitting later, and its transmitting approach" where the error correcting codes used are self-decodable.

Art Unit: 2133

Claims 40-41, 52-53, 78-79, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ott (6,182,264) who shows, in Fig. 2, wireless communications with a base station and a mobile terminal in a selective retransmission protocol based system (as shown by elements 102, 103, 104 and 108 of Fig. 1).

Claims 7-9, 21-23, 34-36 and 59-61 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by van Nobelen (6,353,907) who teaches methods and apparatus for adaptively selecting a retransmission protocol based on precomputed and prestored (Figs. 7 and 10 e.g.) relative protocol gains, see column 7, lines 37-40 “Further, this embodiment of the invention replaces the radio link protocol defined by IS-130 with an incremental radio link protocol (IRLP) described herein”.

Claims 26-27, 29, 42, 47, 49, 66, 72 and 74 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Lee et al. (2002/0053058 cited by applicant) who teaches, in an adaptive ARQ system, transmitting a self-decodable message (see block S13 in Fig. 2) comprising data and redundancy bits wherein, upon an error, additional redundant bits are transmitted (see paragraph [0023]) these additional redundant bits not being self-decodable (see paragraph [0009]).

Claims 54, 65-66 and 77 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Classon et al. (6,732,321) who shows, in a system which selects a retransmission protocol from two or more protocols (“In step 62, a channel management action is taken based on either the total reliability value R or the reliability vector r. The channel management action can include error detection, error concealment, coding rate determination, coding rate selection, or various other actions for configuring the transfer of information over a communication channel”, column 4, line 66 to column 5, line 4) where the device is embodied as an ASIC (“The apparatus 20 can be implemented using various hardware and software components, or combinations thereof. For example, the apparatus 20 can be built using one or more integrated circuits, such as application specific integrated circuits (ASICs)” column 3, lines 47-51).

Claims 10-12, 18-19, 24-25, 37-39, 50-51, 62-64, 75-76 and 85 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Abramson et al. (3,506,961) is cited to show an adaptive system where the coding rate is varied see Fig. 1 and column 4, lines 16-18 "The effect of the parameter a is to interlace strings of check digits over longer blocks of information". Ishibashi et al. (reference "U" on page 1 of the PTO-1892 form), M. L. Lin et al. (reference "V" on page 1 of the PTO-1892 form), Chakraborty et al. (reference "W" on page 1 of the PTO-1892 form), V. S. Lin (reference "X" on page 1 of the PTO-1892 form) and Minn et al. (reference "U" on page 2 of the PTO-1892 form) are cited to show adaptive ARQ schemes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Stephen Dildine whose telephone number is (571) 272-3820. The examiner can normally be reached on M - F 5:30 am to 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decayd can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



R. Stephen Dildine

R. Stephen Dildine
Primary Examiner
Art Unit 2133